one of many devices of the same type useful with the output device, said digital imaging device comprising:

a color sensor for capturing the image and generating [a] the color signal from the captured image, said color sensor having predetermined spectral sensitivities;

an optical section having predetermined spectral characteristics, said optical section interposed in [the] image light from the image directed to the color sensor thereby imparting the predetermined spectral characteristics to the image light, the combination of the spectral sensitivities of the color sensor and the spectral characteristics of the optical section uniquely distinguishing [this] the imaging device from other imaging devices of the same type; and

a set of matrix coefficients uniquely determined for [this] the imaging device in order to generate an optimized color signal, said matrix coefficients correcting the spectral sensitivities of the color sensor and the spectral characteristics of the optical section for the color sensitivities of the output device.

2. (Once amended) An imaging device as claimed in claim 1 in which the optical section includes a lens for directing the image light from the image upon the color sensor, said lens having a predetermined lens spectral characteristic, and wherein the matrix coefficients correct the lens spectral characteristic for the color sensitivities of the output device.

5. (Once amended) An imaging device as claimed in claim 1 wherein the color sensor includes a color filter array for color filtering the image light directed upon the color sensor, said color filter array having a predetermined color filter spectral characteristic, and wherein the matrix coefficients correct the color filter spectral characteristic for the color sensitivities of the [intended] display device.

10. (Once amended) An imaging device as claimed in claim 1 further comprising a color processing section for implementing a matrix correction on the color signal in order to generate the optimized color signal, said color processing section using the set of matrix coefficients that are uniquely determined for [this] the imaging device in order to generate the optimized color signal.

14. (Once amended) An imaging device as claimed in claim 1 in which the optical section includes a lens for directing the image light from the image upon the color sensor, said lens being removable from the imaging device and having a predetermined reference lens spectral characteristic [representative of removable lenses of this type], and wherein the matrix coefficients correct the reference lens spectral characteristic for the color sensitivities of the output device.

16. (Once amended) A digital camera for capturing an image and generating a color signal from the image for input to an intended display device having specific color sensitivities, said camera further being one of many cameras of the same type useful with the display device, said camera comprising:

a color sensor for capturing the image and generating [a] the color signal from the captured image, said color sensor having predetermined spectral sensitivities defining the color response of the color sensor;

a lens for directing image light from the image upon the color sensor, said lens having a predetermined lens spectral characteristic;

an infrared cutoff filter having a predetermined infrared spectral characteristic for filtering the image light directed upon the color sensor;

the combination of said spectral sensitivities of the color sensor and the spectral characteristics of the

lens and the infrared cutoff filter uniquely distinguishing [this] the digital camera from other digital cameras of the same type; and

a matrix storage containing a set of matrix coefficients uniquely determined for [this] the camera in order to generate an optimized color signal, said matrix coefficients correcting the spectral sensitivities of the color sensor and the spectral characteristics of the lens and the infrared cutoff filter for the color sensitivities of the intended display device.

21. (Once amended) A digital camera for capturing an image and generating an optimized color signal from the image for input to an intended display device having specific color sensitivities, said camera further being one of many cameras of the same type useful with the display device, said camera comprising:

a color sensor comprising a color filter array and a photosensor for capturing the image and generating a color signal from the captured image, said color sensor having predetermined spectral sensitivities defining the color response of a specific color sensor employed in the digital camera;

an optical section including at least a lens for directing image light from the image upon the color sensor and an infrared cutoff filter for filtering the image light directed upon the color sensor, said optical section having optical spectral characteristics comprised of a specific lens spectral characteristic which together define the optical response of a specific optical section employed in the digital camera;

the combination of said spectral sensitivities of the color sensor and the spectral characteristics of the optical section uniquely distinguishing [this] the digital camera from other digital cameras of the same type;

a memory containing matrix coefficients uniquely determined for [this] the camera in order to generate the

optimized color signal, said matrix coefficients correcting the spectral sensitivities of the color sensor and the spectral characteristics of the optical section for the color sensitivities of the intended display device, and

a color processing section for implementing a matrix correction on the color signal using the matrix coefficients in the memory in order to generate the optimized color signal.

23. (Once amended) A digital camera for capturing an image and generating a color signal from the image for input through an external processor to an intended display device having specific color sensitivities, said external processor including a color processing section for implementing a matrix correction on the color signal in order to generate an optimized color signal, said camera further being one of many cameras of the same type useful with the display device, said camera comprising:

a color sensor comprising a color filter array and a photosensor for capturing the image and generating [a] the color signal from the captured image, said color sensor having predetermined spectral sensitivities defining the color response of the sensor;

an optical section including at least a lens for directing image light from the image upon the color sensor and an infrared cutoff filter for filtering the image light directed upon the color sensor, said optical section having optical spectral characteristics comprised of a specific lens spectral characteristic which together define the optical response of a specific optical section employed in the digital camera;

the combination of said spectral sensitivities of the color sensor and the spectral characteristics of the optical section uniquely distinguishing [this] the digital camera from other digital cameras of the same type;

a memory containing matrix coefficients uniquely determined for [this] the camera in order to generate the optimized color signal, said matrix coefficients correcting the spectral sensitivities of the color sensor and the spectral characteristics of the optical section for the color sensitivities of the intended display device; and

means for providing the color [image] signal and the matrix coefficients to the external processor.

25. (Once amended) A digital camera for capturing an image and generating a color signal from the captured image, said camera comprising:

a main assembly for housing the camera; and

a removable subassembly including a color sensor having specific color sensitivities for capturing the image and generating [a] the color signal, an optical section including at least a lens and an infrared filter having respective lens and cutoff spectral characteristics, and a memory device containing matrix coefficients for color correcting the spectral sensitivities of the color sensor and the spectral characteristics of the optical section for the color sensitivities of the [intended] display device;

a signal processing section for processing the color signal generated by the color sensor;

electrical connecting means for replaceably interconnecting the signal processing section and the subassembly; and

a color processing section for implementing a matrix correction on the color signal using the matrix [factors] coefficients in the memory device in order to generate [the] an optimized color signal.

26. (Once amended) A digital camera for capturing an image and outputting a color image signal to an external processor, said external processor including a color processing section for implementing a matrix

correction on the color image signal in order to generate an optimized color signal from the captured image, said camera comprising:

a main assembly for housing the camera;

a removable subassembly including a color sensor having specific color sensitivities for capturing the image and generating a color signal, an optical section including at least a lens and an infrared filter having respective lens and cutoff spectral characteristics, and a memory device containing matrix coefficients for color correcting the spectral sensitivities of the color sensor and the spectral characteristics of the optical section for the color sensitivities of the [intended] display device;

a signal processing section for processing the color signal generated by the color sensor;

electrical connecting means for replaceably interconnecting the signal processing section and the subassembly; and

means for providing the color image signal and the matrix coefficients to the external processor.

27. (Once amended) A digital camera for capturing an image and generating a color signal from the image for input to an external processor operative in a connection space having specific color sensitivities defined by a set of color matching functions, said external processor including a color processing section for implementing a matrix correction on the color signal in order to generate an optimized color signal, said camera further being one of many cameras of the same type, said camera comprising:

a color sensor comprising a color filter array and a photosensor for capturing the image and generating [a] the color signal from the captured image, said color sensor having predetermined spectral sensitivities defining the color response of the sensor;

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